

# Your doctor's gender, race may bias your treatment outcome

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"In the study, we had white patients come into a mock doctor's office, where the provider induced a mild allergic reaction by pricking the patients' skin with histamine," explained study lead author Lauren Howe.

"All of the providers gave these patients the exact same treatment for their allergic reaction," noted Howe, an assistant professor of management at the University of Zurich in Switzerland. In this case, it was a placebo cream—an "unscented hand lotion that the providers said was an antihistamine and would reduce their allergic reaction size."

The result: Patients "who happened to receive this treatment from a woman or Black provider showed less of a decrease in the size of their allergic reaction over time," Howe said.

The study team pointed out that the issue of race and [gender bias](#) is of great import. Historically, most doctors in the United States have been male and white, but the composition of the medical profession is changing.

As of 2017, more than half of all accepted applicants to medical schools were people of color, and the majority of accepted applicants were women, according to background notes in the study.

The participants in the study lived in the San Francisco Bay area. All were white. The 13 male or female physicians were Black, white or Asian.

The patients underwent an allergy skin prick test, which induced a mild allergic skin reaction—such as a raised bump. In turn, each doctor applied a cream, which had no medicinal properties, for their patient's allergic reaction.

The skin of each patient was assessed 30 seconds after the placebo cream was applied, and then again three, six and nine minutes later.

Deep-rooted bias may affect the way white patients physically respond to medical care provided by physicians of differing race or gender.

Researchers assessed treatment reactions of nearly 200 [white patients](#) after they were randomly assigned to receive care from a male or female doctor who was either Black, white or Asian.

White patients appeared to improve faster when treated by a white male—the stereotypical doctor in the United States.

But the experiment featured a twist: Each patient was unknowingly treated with a [placebo medication](#), meaning it was drug-free.

Their reactions suggest ingrained gender and race bias. The patients on average experienced demonstrably better physical results after being treated by a white male doctor, as compared with those who had been treated by a female or Black physician.

Patients treated by either a female or a Black doctor had a notably weaker response to the drug-free cream than patients who were treated by a male and/or white or Asian doctor.

The finding, said Howe, suggests that "when a patient walks into a doctor's office, if their doctor doesn't look like the kind of person who has been in that role for most of history—that is, if the doctor is not a white man—then the patients may be less responsive to treatment from that doctor in terms of their immediate, physical response to the treatment."

The white patients, said Howe, did not express any "implicit bias," meaning they didn't rate female or Black doctors as less warm or competent. Nor did they express "explicit bias," meaning they didn't express any more anxiety or nonverbal negative reactions to Black or female caregivers.

"In fact, the white patients in this research were highly motivated to not be prejudiced," Howe noted. "They all reported caring about being non-biased, and tended to engage the most with woman providers and providers of color."

All of which, she said, points to a deep-rooted bias issue, because "even when people report and show [positive attitudes](#) towards providers, they showed less strong of a response to the treatment administered by these providers."

Andrea Roberts is a senior research scientist with the Harvard T.H. Chan School of Public Health. She said typical investigations into race dynamics in health care focus on how Black patient care is undermined.

On that score, she said, "[race and gender bias in medicine](#) has been well-documented" over time.

But Roberts, who was not involved in the study, cautioned that the current effort doesn't provide definitive insight into how white bias might affect how white patients fare.

She characterized the study findings as "mostly conjecture on the part of the researchers," given that the research team's "own data did not indicate

negative [bias](#) to women or Black providers."

The findings are published in the June 27 issue of *Proceedings of the National Academy of Sciences*.

**More information:** Lauren C. Howe et al, White patients' physical responses to healthcare treatments are influenced by provider race and gender, *Proceedings of the National Academy of Sciences* (2022). [DOI: 10.1073/pnas.2007717119](https://doi.org/10.1073/pnas.2007717119)

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